

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Appl. No.	:	10/840,121	Confirmation No. 7230
Applicant	:	Clay Von Mueller	
Filed	:	05/06/2004	
Art Unit	:	2143	
Examiner	:	Jeffrey Pwu	
Docket No.	:	13CT-126385	

April 26, 2007

DECLARATION OF Clay Von Mueller UNDER 37 CFR § 1.131

Dear Sir:

1. I, Clay Von Mueller, am Chief Scientist of SemTek Innovative Solutions. I make this declaration of my own knowledge or on information and belief, and am competent to testify to the facts set forth below.

2. I am the first named inventor of the above identified patent application.

3. I conceived of the invention described in the present application at least as early as December 4th, 2001.

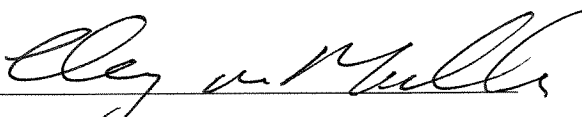
4. I have attached, as Exhibit A, a document describing a "Wireless Table Locator Network." The document evidences a conception of the present invention. I am the author of the document. The document bears an original date of December 4th, 2001.

5. At least as early as December 4th, 2001, the applicants, including myself, were working diligently to reduce the present invention to practice. The present invention was reduced to practice before May 28th, 2002.

6. I have attached, as exhibit B, a chain of e-mail messages relating to a test of an experimental system embodying the present invention. The earliest e-mail message in the chain bears an original date of May 20th, 2002 (see Exhibit B, page 2 of 3). This e-mail message summarizes the results of a test having occurred as of the May 20th, 2002 date, and proposes adjustments to the system in preparation for a future test.

7. I have attached, as Exhibits C through G, a compilation of additional documents relating to the development of the Table Locator Network. These documents date from September 20, 2001 to January 4, 2002. They include, inter alia, project descriptions, development cost estimates, and descriptions of modifications considered and made to the Table Locator Network. These exhibits document the exercise of diligence in reduction to practice.

8. The undersigned inventor declares further that all statements made herein of my own knowledge are true, and that all statements made on information and belief are believed to be true, and further these statements are made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

By 
Clay Von Mueller



December 04, 2001

Table Locator Network (TLN)

The Table Locator Network is a system devised to aid mid-service level restaurants locate tables via a wireless network. The TLN system will match the issued card to the client after order is placed; the client then finds any available table and swipes the card through the table-mounted cardreader. The cardreader will send the card number to the kitchen order status indicator and display the table number and corresponding order number. Food service personnel may then deliver order directly to the displayed table number. The TLN system is comprised of five major components described as follows:

- 1) Pre-Encoded cards with serial number and service location ID. Graphics indicating restaurant name and current promotions, seasonal activities, and basic card use instructions. Cards are a durable thin PVC material with a card number and a high-energy magnetic stripe.
- 2) Table Locator Terminal (TLT); mounts onto the dining tables. Includes a Cardreader, transceiver, and battery pack. The client selects a table then swipes the order card through the cardreader until the green LED lights and the card serial number and table number are transmitted to the system controller. The controller matches the serial number with the saved order number and sends the order number and table number to the Kitchen Order Display (KOD).
- 3) Access Points within the restaurant for communicating with the wireless Table Locator Terminals. One or more Access Points may be mounted above the ceiling for complete coverage. The access points will relay the card and table number to the System Controller and receive power from the System Controller. This is the only connection in the system, which is not wireless. This feature allows the Access Points to be placed in locations without available wall outlet power.
- 4) The Kitchen Order Display (KOD) will display all open order numbers and corresponding table numbers. Food service personnel will clear entries from display after orders are delivered by swiping a waiter ID card through the dinning table Locator Terminal or optionally using touch screen commands on the Order Status Indicator.
- 5) The System Controller supplies power to the access points, collects card data from the Table Locators, sends the order number the Kitchen Display. It also maintains a database of delivery information and sends alarms to the Kitchen Display if an order is not closed within a specified time. The database is also available for management functions.

- Any number of order cards may be swiped through the card reader and assigned to a dinning table.
- The TLN system can be expanded to include loyalty programs and used for data collection for food delivery performance.
- The TLN wireless network can also be expanded to use the Semtek wireless PDA swipe for remote order entry and credit card processing.

FROM : SARKISIAN
04/23/03 17:47 FAX 619 238 4959

FAX NO. : 8583501471
XD&C

Apr. 24 2003 08:

0009

Page 1 of 3

Bob Mos

From: "Robert Mos" <rmos@semtek.com>
To: <rm@breadstick.com>; "Chris Thomas" <CThomas@breadstick.com>; <bholder@breadstick.com>; <aherter@breadstick.com>; <jgigliotti@breadstick.com>; "John Sarkisian" <john@semtek.com>
Cc: "Clay von Mueller" <cv@semtek.com>; "Bob Mos" <bmos@semtek.com>
Sent: Tuesday, May 28, 2002 10:21 AM
Subject: Semtek TLN System Install

John Sarkisian and staff at Pat & Oscars,

The TLN System upgrade is near completion and we are preparing for the final install at the Mira Mesa Pat & Oscars.

Changes to the TLN system are as follows:

- 1) Table top units are reconfigured with larger LED on other side of slot, card orientation for swipe has been reversed, new table identifier with section number and table letter complete have been applied and new labels attached. Addition of five more Table Top Units for use at Cashier stations.
- 2) Kitchen Display Unit has been replaced with a 15" TFT Active matrix display with a auxiliary VGA port to allow for a second monitor.
- 3) Access Point upgrade, new high gain antennas for increased coverage area. New PC boards arrive today for assembly and test.
- 4) Software updates and changes, re-order display of tables sequentially, eliminate pop-up status indicator, add dial control for time set, add cashier swipes to display, and add new table mapping location identifiers.
- 5) Firmware updates, LED flashing green for 15 minutes after good swipe. Allow Table Top Unit location ID to be programmed at site with special cards.
- 6) New cards with larger order number and swipe instructions on back will be delivered June 10th.

Final assembly and testing of new TLN system will be completed in the next few days and we plan to install at Pat & Oscars on Friday morning May 31st at 8:00 am.

Thank you again for your cooperation and the opportunity to work with Pat & Oscar's.

Sincerely,

Robert Mos (rmos@semtek.com)
Director Product Development
Semtek Innovative Solutions
www.semtek.com
858.279.8003 x 16
4217 Ponderosa Ave, Ste. A
San Diego, CA 92123

----- Original Message -----

From: John Sarkisian
To: John Sarkisian ; jgigliotti@breadstick.com ; aharter@breadstick.com ; bholder@breadstick.com ; Chris Thomas ; rm@breadstick.com
Cc: cvonmueller@semtek.com ; rmos@semtek.com ; Bob Mos
Sent: Monday, May 20, 2002 5:21 PM
Subject: Re: TLN System

Excuse my mistake. The installation will be next Tuesday the 28th not the 21st.

----- Original Message -----

P2 3393

5/28/2002

FROM : SARKISIAN
04/23/03 17:46 FAX 019 238 4858

FAX NO. : 8583501471
MD&C

Apr. 24 2003 08:35

010

Page 2 of 3

From: John Sarkisian
To: jgigliotti@breadstick.com; aharter@breadstick.com; bhalden@breadstick.com; Chris Thomas; mm@breadstick.com
Cc: cvoornmueller@semtex.com; mmos@semtex.com; Bob Mos
Sent: Monday, May 20, 2002 4:12 PM
Subject: TLN System

Chris, Amy and Jenelle,

Thank you for hosting us at lunch today. I think we have the beginnings of a great system which should help to simplify the delivery of food to the tables, lower labor costs, improve guest service and measure service standards.

Given your feedback and our observations of the system I have met with our team and we have the following action plan:

Robert will be in the restaurant tomorrow to remove the display unit and the table swipe readers.

Replace the display unit, which has an 11 inch screen, with two 15 inch active matrix display units. These are brighter units and easier to read.

Orders will be displayed from lowest number on up, instead of random.

Scrolling option for additional display of tables.

Upgrade antennas for better communication with table readers.

Card swipes will be installed at each register allowing the cashier to enter the card number starting the clock at that time. Should the Guest fail to swipe the card at the table you at least know the order is out there and how long they have been waiting.

The table swipe readers will be reconfigured so that the card does not have to be swiped and then turned around for display. We will also lift up the light and move it to the edge of the reader making it visible by a manager. The light will display on for a prescribed period of time after the guest swipes the card. We would suggest that time be your standard for delivering the food to the table (12 or 15 minutes). The light will go off after that time indicating the order is outside the standard. Therefore the only reason the light would not be on at a table occupied by a guest is their failure to swipe the card or the order is outside the time standard.

Currently the tables are numbered. Do you want letters? I.e. A,B,C, up to AAA, etc. or would you like sections such as A1-9, B1-9 etc. or some other configuration for the tables? I need your response

With the next installation there will be 5 replacement units with programming cards to replace table units that may not work due to spills, etc.

It is our intention to make these changes and re-install the system next Tuesday May 21st.

Cards with larger numbers will be available in two weeks and we will deliver those as soon as possible. In addition at that time there will be a "Manager" card available that would notify the expeditor of a problem with a table.

Assuming the system meets your requirements and Pat & Oscar's places orders for additional systems the following modifications can be addressed:

1. Design and tooling of a custom table swipe reader.
2. Design software to link with Positouch.
3. Custom designed reporting.

I believe we have covered the concerns addressed today. Please reply if there are any concerns we have not addressed.

Thank you for your cooperation and the opportunity to work with Pat & Oscar's.

Sincerely,

John Sarkisian

P2 3394

5/28/2002

FROM : SARKISIAN
04/23/03 17:49 FAX 619 236 4959

FAX NO. : 8583581471
WD&C

Apr. 24 2003 08:36AM P11
2011

Page 3 of 3

Semtek Innovative Solutions
4217 Ponderosa Avenue, Suite A
San Diego, CA 92123
www.semtek.com
john@semtek.com
619-278-6003 x 21
619-820-8501 Mobile

FROM : SARKISIAN
04/23/03 17:47 FAX 019 236 4959

FAX NO. : 8583501471
MD&C

Apr. 24 2003 08:33

2 uvs

Semtek

CONFIDENTIAL

New Product Development

PRODUCT: Wireless Table Locator Network (TLN).

Customer: Oscar's restaurant

PRODUCT DESCRIPTION:

Project Engineer: Clay von Mueller

- Two Track magnetic stripe cardreader semi permanent attached to a tabletop. The reader is battery operated and transmits the customer location to the server.
- Data entry and display terminal at the cashier. Card is issued to customer at that time.
- Access-Point terminal to receive and transmit customer table location to the server.
- Magnetic cards are in addition to the table locator function, a loyalty, and special events or discount card. This function will be handled on the second track.

COST GOALS: NRE including tooling (does not include \$ 60,000 investment for Aranel) \$ 55000

BOM, DL and FOH, 100 table card readers	\$ 55
BOM, DL and FOH, Data Entry terminal	\$1850
BOM, DL and FOH Access-Point	\$ 300

Proposed sell price for system consisting of 80 cardreaders, two Access-Point and one data entry terminal with 4 Cardreaders/transceivers: \$12,500

Semtek will make the commitment if a minimum of 15 systems is ordered by OSCAR, and progress payments of \$15,000 per month for 4month to cover NRE.

TECHNICAL ISSUES:

- Evaluate if components of Aranel design may be used.
- Write a proposal for the system performance and get approval from Oscar
- Update the selection of hardware and select RF transceiver.

MANUFACTURING ISSUES:

- 100% assembled in San Diego.
- Full documentation release with visual aids
- Quality control/assurance plan.

TOOLING REQUIREMENTS:

Part	Tooling	Own. Rel.	First Art.	Pilot Prod.
MSR with transmitter housing and base:	SLA+AI tool			
Data entry terminal:	AI stamping			
Access-Point:	AI stamping			

SCHEDULE MILESTONES:

	Est. Date	Orig. Date	Resource
Evaluation current status Aranel	complete		Clay
Release Engineering proposal	9-18-01		Clay/Robert
Cost estimate for new system	9-19-01		Robert
Design new system	10-19-01		Clay/Robert
Build prototype system	10-30-01		Greg
Release one system for beta run and test	11-30-01		Clay/Greg
Test and qualify for production	12-15-01		Greg/Ron
Production release/ final documentation	12-20-01		Robert/Miguel
Qualification test (FCC, CE Mark)	12/20-01		Ron

Next major step: Get Oscar's approval and PO for NRE and 15 systems.

9/20/2001

NRE-2.1

Clay von Mueller, CTO

P2 3392

FROM : SARKISIAN

04/23/03 17:44 FAX 819 238 4959

FAX NO. : 8583581471

HD&C

Apr. 24 2003 08:31AM P4

004

Page 1 of 1

Bob Mos

From: "Bob Mos" <bmos@semtex.com>
To: <Steve@breadstick.com>
Cc: "John Sarkisian" <jsarkisian@breadstick.com>; "Robert Mos" <rmos@semtex.com>; "Clay von Mueller" <cvmm@semtex.com>
Sent: Tuesday, October 02, 2001 4:45 PM
Subject: Table Locator Network project

Dear Steve,

The proposal for the table Locator Network dated September 18, 2001, is an estimate of the NRE and System cost. Since we have not concluded the best possible and most economical approach, the quoted prices will stand as a fixed price proposal.
We will agree to a cost plus 20% for the development of the system

The cost will be divided in:

- Semtex in-house engineering for mechanical and electronic design. Resources are Clay, Robert, Greg and Miguel.
- Outside engineering resources.
- Purchases for development materials.
- Prototype plastic parts(SLA) and machined parts.
- Plastic tooling for the table reader/transceiver.
- Metal stamping tooling.
- Installation and training with the first restaurant.

The above tasks will be monitored by accounting and presented to you on a monthly basis.
We estimated the completion of this project by the end of December, 2001. At that time, a location of your choice will be equipped with a test system.

The rollout for production of the tooled systems will start in January, 2002. The initial 10 restaurants can be equipped in Q1, 2002.

To start the program, we need a purchase order for development of the system with a down payment of \$ 20,000. And a purchase order for 10 systems at \$ 12,500 each (not including installation and training) subject to acceptance of the first demo system.

Steve, I will call you tomorrow to discuss this proposal further and work on some details that I might have left out.

Best regards,

Bob Mos

P2 3388

10/2/2001

FROM : SARKISIAN
04/23/03 17:44 FAX 619 235 4958

FAX NO. : 858 350 1471
MD&C

Apr. 24 2003 08:

003



Pat & Oscar's

10678 Westview Parkway
San Diego, CA 92126
(858)695-8500 x3414 fax (858)695-9110

Purchase Order No. IT061901-41

PURCHASE ORDER

Vendor		Ship To	
Name	Symtek	Name	Steve Thomas - Pat & Oscar's
Address	4901 Morana Blvd, Suite 1108	Address	10678 Westview Parkway
City	San Diego 92117	City	San Diego St CA ZIP 92126
Phone	858.490.4294 FAX 858.490.4298	Phone	(858)695-8500

Qty	Units	Description	Unit Price	TOTAL
1	1	Table Locator System	\$12,500.00	\$12,500.00

Payment Details

- ☐ Check
☐ Cash
☒ Account No. _____
☐ Credit Card

Name _____
CO # _____
Exp Date _____

SubTotal	\$12,500.00
Shipping & Handling	
Taxes CA	
TOTAL	\$12,500.00

Shipping Date _____

Approval

Steve Thomas
Steve Thomas
Director of Cost Controls

Date 10/05/2001
Order No _____
Sales Rep _____
Ship Via _____

Notes/Remarks

FROM : SARKISIAN

04/23/03 17:45 FAX 619 238 4959

FAX NO. : 8583521471

MDAC

Apr. 24 2003 08

Exhibit F
Page 1 of 2
Document Date 12/17/01

Page 1 of 2

Bob Mos

From: "Robert's email" <rmos@semtak.com>
To: "Bob Mos" <bmos@semtak.com>; "Clay von Mueller" <cvml@semtak.com>
Sent: Monday, December 17, 2001 8:29 AM
Subject: Fw: TLN Kitchen/Expeditor unit screen shots

----- Original Message -----

From: John Gigliotti
To: Steve Thomas; 'rmos@semtak.com'
Cc: Lake Swisher; John Sarkisian
Sent: Friday, December 14, 2001 5:37 PM
Subject: RE: TLN Kitchen/Expeditor unit screen shots

I am interested in setting up a time when we can all get together. The purpose of this meeting is to get a better understanding of how this system will interface to the POS system. Next week would be best.

Is Thursday lunch ok?

John Gigliotti

----- Original Message -----

From: Steve Thomas
Sent: Thursday, December 13, 2001 5:13 PM
To: 'rmos@semtak.com'
Cc: RSG; Scott Hayes; Brandon Clarke; John Gigliotti
Subject: FW: TLN Kitchen/Expeditor unit screen shots

Bob,

Thanks for the preliminary development work on the expeditor order display unit. Some quick feedback:

1. The orders displayed don't seem to be arranged in order of order number. I think that they should. Or possibly oldest order first.
2. How are we going to control the screen? (Touch to bump, double click to bump. How do we retrieve orders bumped in error. etc.)
3. Has thought been given to capturing and reporting service times? Will this reporting function be tied in to our backoffice computer or will we be able to print or e-mail this report to another computer? Can we report over a range of days or just one day? Lots of possibilities here.
4. Since most of our orders happen in two waves, can the screen accommodate showing that the first wave of food was delivered by a color change (or something). This may require two bumps for each order. Some orders are one wave only (could be first (salad) wave only or second (hot food) wave only. Some orders are no wave (hand delivered by the cashier at the time of sale (breadsticks, salad dressing, cookies, beverages only orders).
5. I would like to, if possible, be able to highlight an order and display what food was ordered.
6. Although black and yellow is very cultural, it's very tough on the eyes. May I suggest that we try something a tad more visually friendly?

P2 3389

12/17/2001

FROM : SARKISIAN
04/23/03 17:45 FAX 619 238 4858

FAX NO. : 8583581471
WDEC

Apr. 24 2003 08:14008

Page 2 of 2

7. Will this touch screen computer be restaurant friendly (designed for food service, waterproof, etc.)?

We should probably meet to discuss further. Call me @ 619 247-9568.

Thanks.

Steve

-----Original Message-----

From: Robert's email [mailto:rmos@semtek.com]
Sent: Thursday, December 13, 2001 4:35 PM
To: Steve Thomas
Subject: TLN Kitchen/Expeditor unit screen shots

Sent: Thursday, December 13, 2001 3:55 PM
Subject: TLN Kitchen/Expeditor unit screen shots.

Robert Mos (rmos@semtek.com)
Director Product Development
Tel: 658.278.6003 ext. 16
Fax 658.278.6004
4217-A Ponderosa Avenue
San Diego, CA 92123
Semtek Innovative Solutions

TLN screen shot page2.jpg; TLN SCREEN page1.jpg; TLN SCREEN page3.jpg

P2 3390

12/17/2001

FROM : SARKISIAN
04/23/03 17:40 FAX 019 238 4959

FAX NO. : 858 352 1471
MD&C

Apr. 24 2003 08

Semtek

CONFIDENTIAL

New Product Development

PRODUCT: Wireless Table Locator Network (TLN).

Customer: P&O's restaurant

PRODUCT DESCRIPTION:

- One track magnetic stripe cardreader with semi-permanent attachment to tabletop. The reader is battery operated and transmits the customer location to the kitchen station via wireless LAN.
- Access-Point terminals to receive and transmit customer table location to the Kitchen station.
- Magnetic stripe cards with 3 digit customer number displayed on front. Cards are swiped through Table Locator.
- Kitchen Display Station, matches table location and customer number.

COST Estimates:

BOM, DL and FOH, 100 table card readers	\$ 60
BOM, DL and FOH, Data Entry terminal and Kitchen display.	\$2600
BOM, DL and FOH, Access-Point	\$ 800

Budgetary sell price for system consisting of 100 cardreaders, one Access-Point and one data entry terminal: \$ 15,000

Semtek commits a minimum of 10 systems for Pet & Oscars.

TECHNICAL ISSUES:

- Software requirements for the KDU and Access points.
- Approval of conceptual design for TLN Tabletop unit.
- Write a operation description for the system and get approval from Oscar
- Update the selection of hardware.
- External antenna option for fringe areas.

MANUFACTURING ISSUES:

- 100% assembled in San Diego.
- Full documentation release with visual aids
- Quality control/assurance plan.

TOOLING REQUIREMENTS:

Part	Tooling	Dwg. Rel.	First Art.	Pilot Prod.
MSR with transmitter	SLA+al tool	Complete	Complete	
Housing Design:				
KDU Kitchen Display Unit:	SS stamping	1-4-02	1-15-02	
(SS Case)				
TLN Table Top Unit:	Mold /Base stamp	1-8-02	2-8-02	2-15-02

SCHEDULE MILESTONES:

	Est. Date	Orig. Date	Resource
Evaluation current status Aranel	Complete		Clay
Release Product description	Complete		Robert
Design new system (Electronics)	1-15-02		Clay
Industrial Design (Package)	1-8-02		Robert
Order Mag stripe Cards (3weeks ARC)	1-10-02		Robert
Build Mock TLN unit.	Complete		Robert
Build prototype system.	2-1-02		All
Transceiver software	2-10-02		Contract
Release one system for beta run and test.	2-18-02		Clay/Greg
Test and qualify for on site install.	2-22-02		All
Production release/ final documentation	2-30-02		Robert/Miguel
Qualification test (FCC)	2-30-02		Rcn

Next major step: Approve TLN tabletop unit design, Release KDU Case, KDU software contract.

1/4/2002

ME-2.1

Engineering

P2 3391